

NWS FORM E-5 <small>(11-88)</small> <small>(PRES. by NWS Instruction 10-924)</small> NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	U.S. DEPARTMENT OF COMMERCE HYDROLOGIC SERVICE AREA (HSA) WFO Jackson, Mississippi
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH YEAR March 2015
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE Alan E. Gerard, Meteorologist In-Charge DATE 4/30/2015

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☐ An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

The month of March 2015 was a little warmer than normal, particularly for the central and southern areas of the HSA (Hydrologic Service Area). Hattiesburg averaged a whole 5 degrees above the normal monthly average temperature. The ASOS (Automated Surface Observing System) locations along I-20 including Vicksburg, Jackson, and Meridian were between 1 to 3 degrees above the normal monthly average temperature. The Delta locations (Greenville and Greenwood) were both right at normal. Precipitation-wise, all locations received within an inch of normal March rainfall except for Jackson, which totaled a little more than 2 inches above normal.

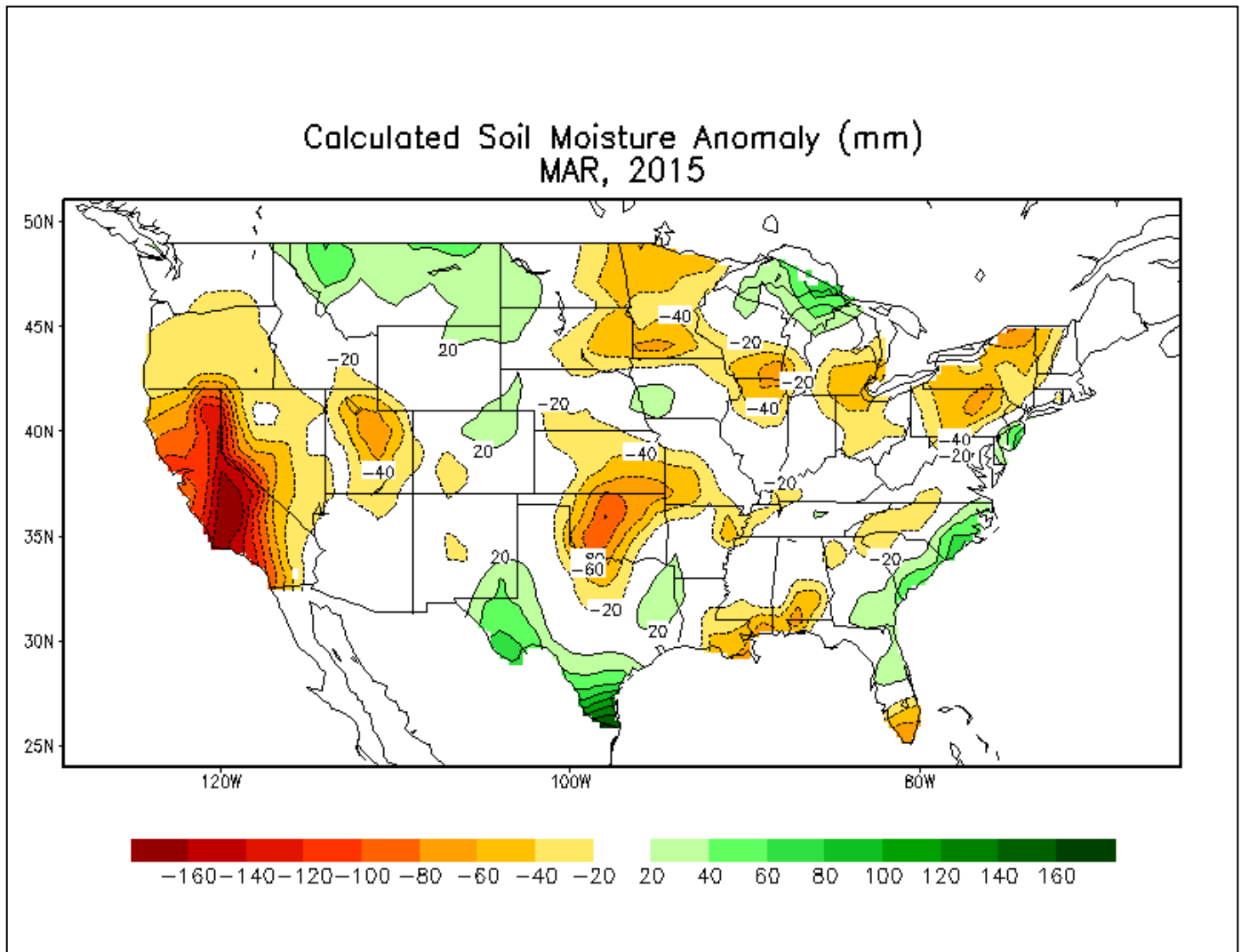
The month started out with a couple of frontal systems moving through the HSA. One of these systems brought a widespread half inch of rainfall to the area on the 2nd and up to two inches of rainfall to our most southern Louisiana parishes on that same day. After very cold arctic air finally pushed far enough south on the 4th, the precipitation that fell early on the 5th turned into sleet and snow in the northwestern half of the HSA. Up to two inches of mixed precipitation fell in the far northern counties.

High pressure moved in behind the front for a couple days and eventually warmed the area up again allowing the snow and ice to melt. On the 9th, a low pressure system formed along the southern Texas coast and triggered showers and storms northward into Louisiana. The system tracked northeastward on the 10th and brought a warm front along with a widespread half inch of rainfall to the HSA as well as 1-1.5 inches of rainfall along and west of the Mississippi River. As the system continued to exit the region on the 11th, a tenth to a half inch of rainfall fell south and east of the Natchez Trace Parkway. Again on the 13th and 14th, cyclogenesis occurred in the northwest Gulf of Mexico and the low tracked right through the HSA. This system dropped one-quarter to three-quarters of an inch of rainfall across the entire forecast area.

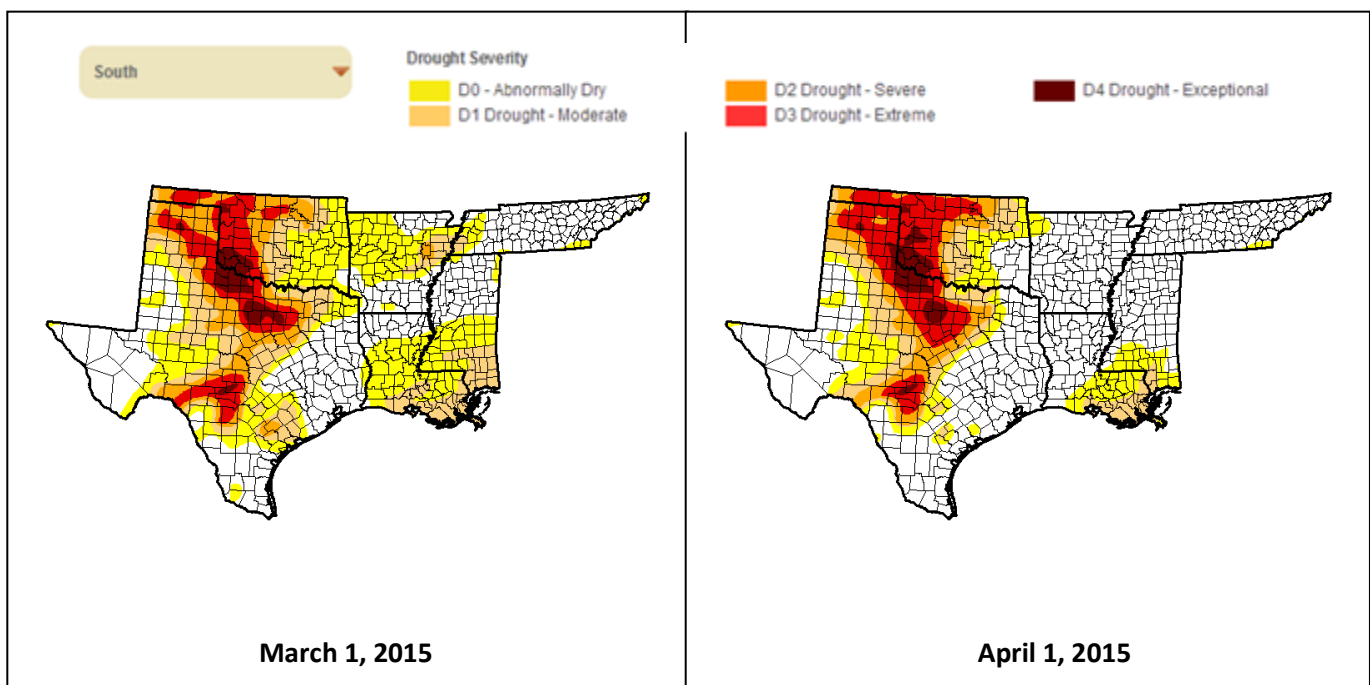
Quiet weather prevailed through the 18th as high pressure settled into the area. On the 19th, a front stalled within the HSA and brought scattered rainfall to the area through the 23rd. The heaviest rainfall occurred on the 22nd when a widespread inch of rainfall fell and up to two inches in the Pearl River and Leaf River Basins. The rest of the month was fairly quiet with one last front passing through the state on the 27th, bringing only scattered rainfall.

River and Soil Conditions

Soil Moisture Map:

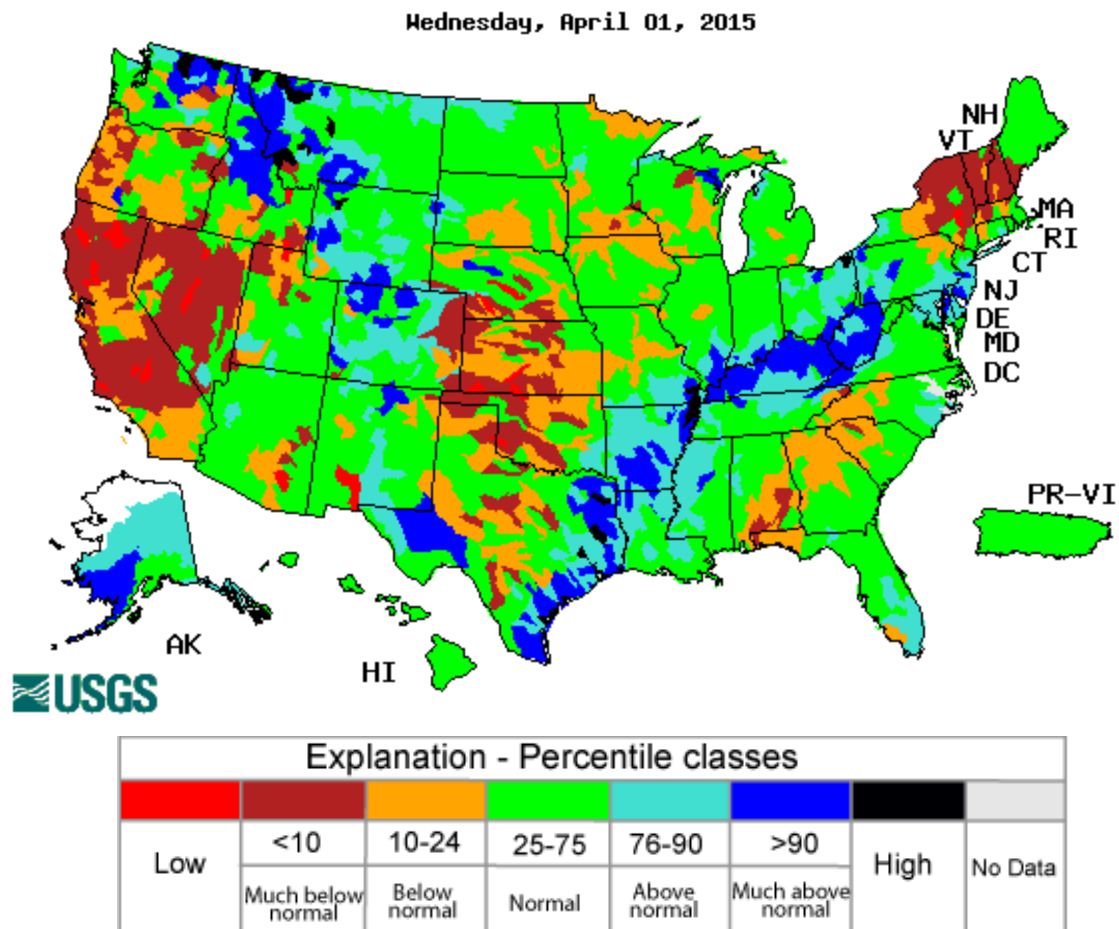


Drought Comparison:



Streamflow:

The United States Geological Survey's (USGS) March 2015 river streamflow records were compared with all historical March streamflow records. The average streamflow for this March was above normal for the Yazoo, Sunflower, Big Black, and Upper Pearl River Basins in Northwest Mississippi and the Black River basin in northeast Louisiana and the Ouachita River basin in Southeast Arkansas. The rest of the HSA experienced normal streamflow.

**River Conditions:**

Flooding occurred in the Big Black, Pearl, Sunflower, and Yazoo River Basins as a combined result of multiple heavy rainfalls. For the conditions of the Mississippi River from Arkansas City to Natchez, refer to the hydrographs on the next page.

Climatic Outlook and Flood Potential:

The climatic outlook shows equal chances for above, below, and normal temperatures over the next three months for the entire HSA. In regards to precipitation, the outlook predicts above normal precipitation amounts over the next three months for the entire HSA. Thus, based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

Pearl River System: Above normal.

Yazoo River System: Above normal.

Big Black River System: Above normal.

Homochitto River System: Above normal.

Pascagoula River System: Above normal.

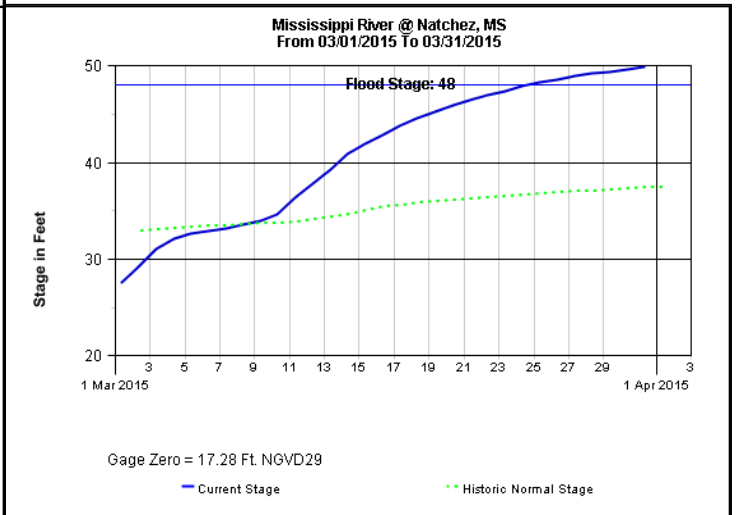
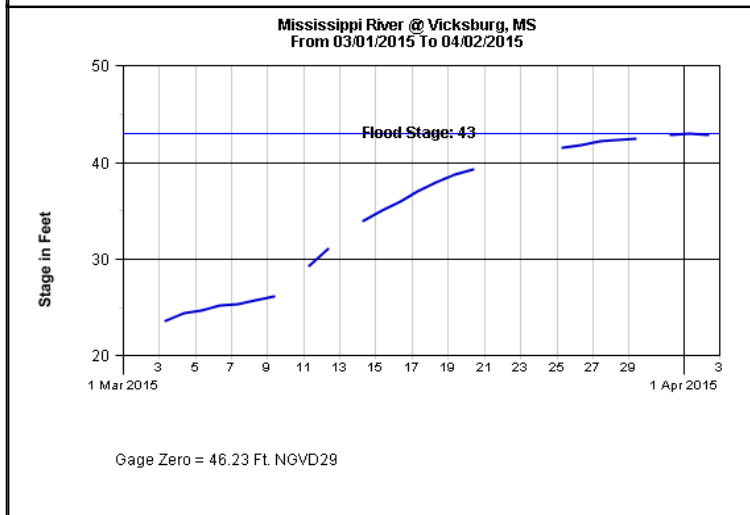
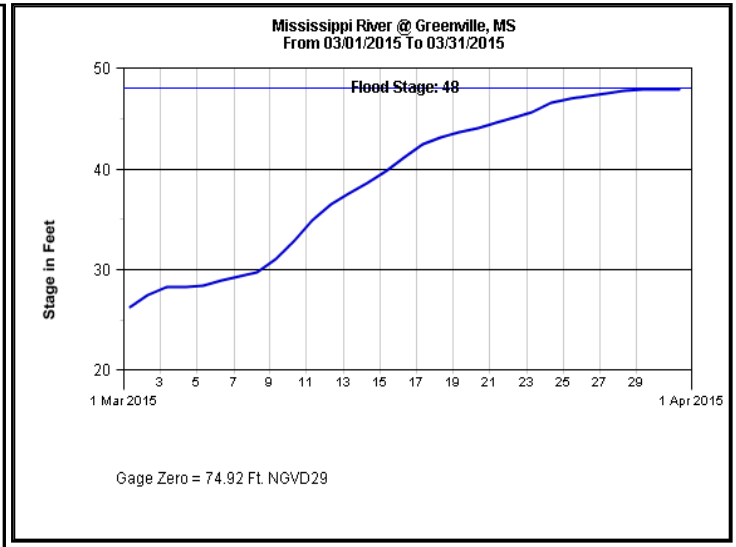
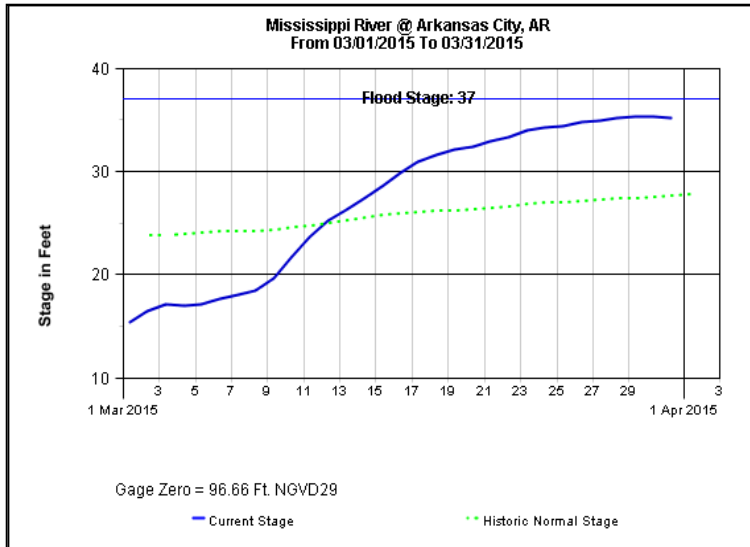
Northeast LA and Southeast AR: Above normal.

Tombigbee River System: Above normal.

Mississippi River: Above normal.

Mississippi River Plots March 2015

Plots Courtesy of the United States Army Corps of Engineers



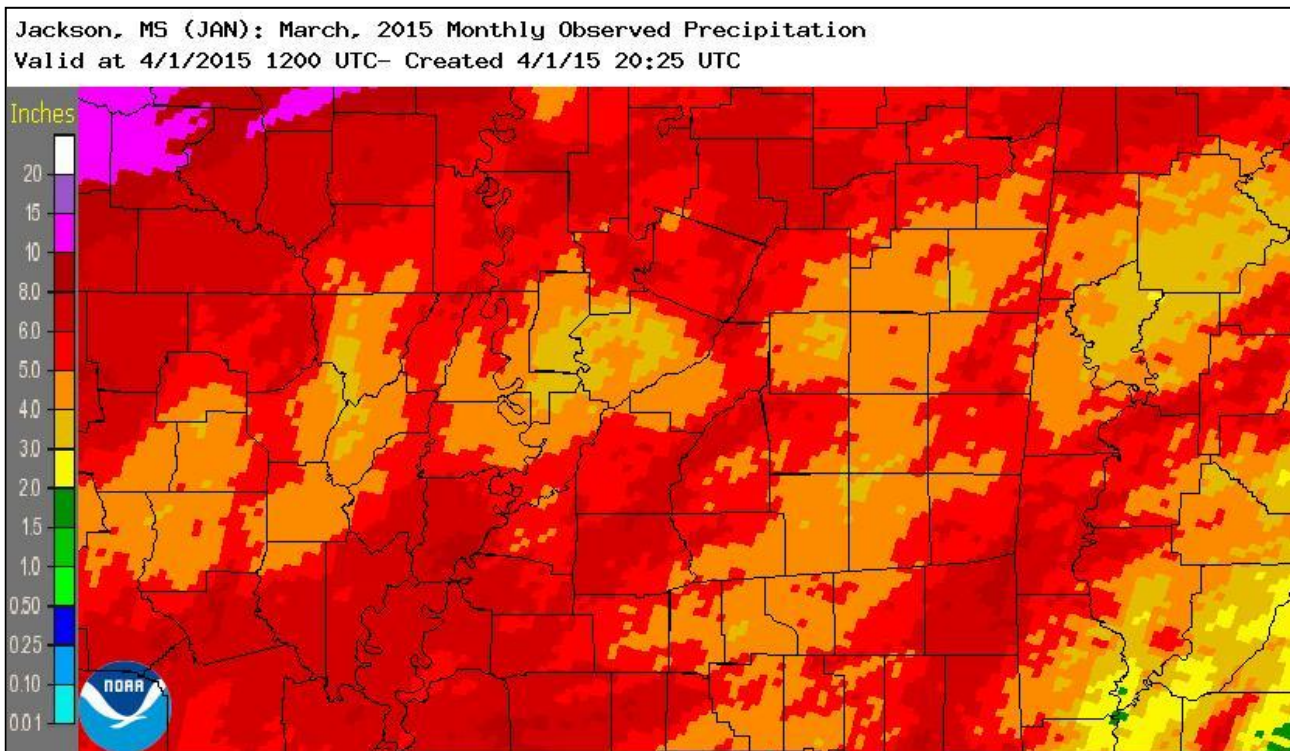
Monthly Preliminary High and Low Stages:

Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	35.34	3/30	15.42	3/01
Greenville	48	47.98	3/30	26.32	3/01
Vicksburg	43	42.86	3/31	20.78	3/01
Natchez	48	49.88	3/31	27.56	3/01

Rainfall for the Month of March

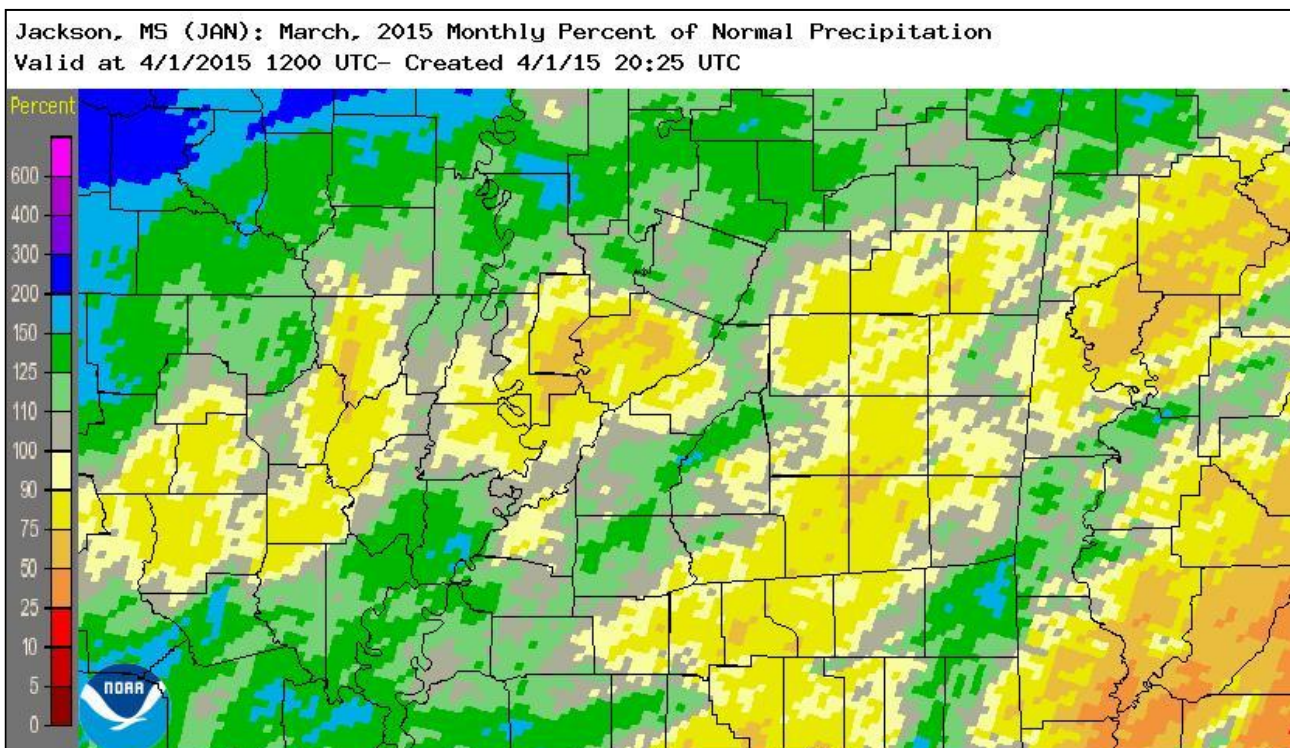
The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on February 28th until 7 am on March 31st were: 8.56 inches at St. Joseph, LA; 8.36 inches at Vaiden, MS; 8.19 inches at Ridgeland, MS; 8.14 inches at Belzoni, MS; 7.64 inches at Crystal Springs, MS; 7.58 inches at Hazlehurst, MS and Pat Harrison Waterway's Archusa Water Park, MS; 7.53 inches at Eudora, MS; 7.44 inches at Dermott, AR; 7.42 inches at Moorhead, MS; 7.12 inches at Natchez, MS; and 7.01 inches at Crossett, AR;

March Rainfall Estimates:



Note: Observer rainfall and MPE may differ due to time differences.

March Percent of Normal Precipitation:



Note: Observer rainfall and MPE may differ due to time differences.

March Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2015 Rainfall	2015 Departure from Normal
Jackson (KJAN)	7.27	+2.23	17.47	+2.70
Meridian (KMEI)	4.91	-0.51	15.75	-0.40
Greenville (KGLH)	4.61	+0.06	11.06	-3.48
Greenwood (KGWO)	5.14	+0.83	14.53	+1.28
Hattiesburg (KHBG)	5.71	+0.21	13.54	-3.09
Vicksburg (KTVR)	4.24	-0.79	15.49	+0.12

Total Flood Warning products issued: 17

Total Flood Statement products issued: 234

Total Flood Advisories MS River: 27

Daily Climate and Ag WX Products (AGO'S) issued: 31

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31

Daily River and Lake Summary Products (RVD'S) issued: 31

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&

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District